

**Return on Investment Program Funding Application (FY 2003 Request)**

This is an electronic template. Please enter your responses on this document. Only electronic submittals of this template will be accepted. Proposals submitted after the designated due date may not receive funding consideration.

FINAL AUDIT REQUIRED: The Enterprise Quality Assurance Office of the Information Technology Department is required to perform a final project outcome audit, after implementation, for all Pooled Technology funded projects.

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N**SECTION I: PROPOSAL**Date: June 1, 2001Agency Name: Information Technology DepartmentProject Name: Enterprise Data Warehouse

Expenditure Name: _____

Agency Manager: Randy ClemensonAgency Manager Phone Number / E-mail: randy.clemenson@itd.state.ia.usExecutive Sponsor (Agency Director or Designee): Richard J. Varn**Request For ROI Application Waiver:**

Agencies are required to complete this funding application when requesting funds for any project, any IT expenditure costing over \$100,000, or any non-routine IT expenditure. If you feel there is compelling reason to waive this requirement, please provide (in the box provided below) a brief description of the project or expenditure, the budget amount, and a rationale for the waiver request. Until a decision is made regarding your waiver request, it is not necessary to complete any other portion of this application. The ITD Enterprise Quality Assurance Office will convey waiver request decisions within five working days of receipt.

Explanation:**A. Project or Expenditure Rationale**

Is this project or expenditure necessary for compliance with a Federal standard, initiative, or statute? ☐ YES (If "YES," explain) ☒ NO

Explanation:

Is this project or expenditure required by State statute? ☒ YES (If "YES," explain) ☐ NO

Explanation: Senate file 2433 – E-commerce and digital government.

Does this project or expenditure meet a health, safety or security requirement?

☐ YES (If "YES," explain) ☒ NO

Explanation:

Is this project or expenditure necessary for compliance with an enterprise technology standard?

☒ **YES** (If "YES," explain) ☐ **NO**

Explanation: The Enterprise Data Warehouse creates a common platform with standardized data definitions establishing the capability of directly linking data from multiple agencies in common use applications. Each agency maintains authority over its data, maintaining the integrity and security of who and how the information is accessed. This project supports the Governor's goal of 100% E by 2003.

Is this project or expenditure consistent with meeting the goals and objectives of the State's strategic plans?

☒ **YES** (If "YES," explain) ☐ **NO**

Explanation: This project meets the following goals of the State of Iowa:

1. Common platform with common data standards across the state agencies for mutual sharing of data and information to improve the overall service State government provides its citizens.
2. Secure access to information across agency boundaries.
3. Uniformity in approach to data warehousing activities - storage, metadata, access, and scaling.
4. Mutual support of similar activities between ITD and state agencies.
5. Maximized use of limited assets and manpower.
6. Shared cost of development, test and production of building agency warehouses through enterprise resource management, allocation, and support.

Is this a "research and development" project or expenditure? ☐ **YES** (If "YES," explain) ☒ **NO**

Explanation:

B. Project or Expenditure Summary

1. Provide a pre-project or pre-expenditure (before implementation) and a post-project or post-expenditure (after implementation) description of the impacted system or process. In particular, note if the project or expenditure makes use of information technology in reengineering traditional government processes.

Response:

PRE-PROJECT: Data from agencies are collected on numerous systems in numerous formats and are not easily accessible without writing additional interface or reporting programs. Data sharing across agencies is limited or non-existent. Most agencies are limited to creating data extracts and providing those extracts to their service partners. It is common for agencies to store duplicated information with differing data definitions, creating confusion in analyzing data across boundaries. For agencies to accomplish information integration with other agencies, they must engage in normalization and standardization activities with each new partner.

POST-PROJECT: Building agency-based data warehouses on a common platform with common standards creates an environment where data are readily available to support both intra- and inter-agency information dissemination and sharing activities. Each agency will have the opportunity to build join-use applications available within their own networks independently or through a secure Internet zone established by the Enterprise.

2. Summarize the extent to which the project or expenditure improves customer service to Iowa citizens or within State government. Included would be such items as improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, etc.

Response: Agencies will be able to coordinate information deployment and dissemination to mutual client bases. State staff will have access to uniform data to support their work activities. Agencies will have the means to both publicly and securely disseminate more information in a more timely fashion needed by citizens, legislators, other agencies, service providers, and federal partner organizations. Those who rely on the same information will be accessing the same data set promoting uniformity of information.

Some actual examples are as follows:

1. The first iteration of the Enterprise Data Warehouse was able to provide answers to all 91 correctional impact statements in FY01. Previously no data for any correctional impact statements involving penalty changes for simple misdemeanors or scheduled violations was able to be provided. This significantly helped the Legislature predict the revenue impact of altering penalties for 100 different traffic violations which affected 294,000 convictions.
2. CJJP staff were able to reduce query and reporting costs from an estimated \$215,232.00 to \$2,690.00 during FY01 while improving the timeliness and accuracy of the data.
3. Before the data warehouse a CJJP FTE spent 5-6 months at 35 hr per week preparing clerk of court data for analysis. This effort was eliminated with the implementation of the data warehouse.
4. DHS was able to create a single point of program identification for eligibility purposes.
5. Child welfare data are readily available to management and workers via web interface. Data related questions can be answered in seconds with the ability to look at the information from any demographic view over the last several years. DHS is currently preparing to make this information in summary version available through DHS's internet site.
6. DRF was able to identify audit opportunities. They identified 4,835 business tax non-filers and 43,000 individual income tax under-reporter lead. 12,000 of the 43,000 individual leads resulting in over \$1 million in revenue collections in May 2001. A total of \$3.5 million in revenue collections have since the inception of this program.
7. CJJP and DHS initiated a joint application hosted by DHS. This application uses DHS data warehouse data and data supplied by an external database.
8. DHS Income Maintenance workers can view the historical record of their clients with a "click of a button" showing all DHS resources brought to bear in support of Iowans in need. With this information, these workers can examine every payment made to a client so support compliance with the Federal Health and Human Services' Temporary Aid to Needy Families (TANF) 60 month rule.

3. Identify the main project or expenditure stakeholders and summarize the extent to which each, especially citizens, is impacted. In particular, note if the project or expenditure helps reconnect Iowans to State government.

Response:

1. Legislature was able to estimate the correctional impact on Iowa's taxpayers of making changes in Iowa's sentencing laws.
2. State Departments of Corrections, Public Safety, Human Services, Revenue and Finance have utilized the data warehouse to significantly improve their decision making and service delivery. DHS has created a single point of query access to multiple legacy systems. This enables field and case workers to easily identify eligibility and assist citizens in a timely manner. Case workers have rapid access to history which assists them in making critical case decisions. Revenue and Finance have used to data warehouse to analyze and identify audit opportunities.
3. Citizens who need DHS services and identifying potential outreach opportunities to citizens.
4. Citizens who have not been paying their taxes have the opportunity to be reconnected with their government.
5. Service providers such as doctors, foster care providers and community health organizations who interact with DHS.
6. The U.S. Dept of Health and Human Services for TANF (Temporary Assistance for Needy Families).
7. Agencies will have better opportunities to coordinate and manage mutual services to clients in common, simultaneously providing better service(s) at lower costs to deploy and manage.

SECTION II: PROJECT ADMINISTRATION

A. Agency Information

1. Project Executive Sponsor Responsibilities: The sponsor must have the authority to ensure that adequate resources are available for the entire project, that there is commitment and support for the project, and that the organization will achieve successful project implementation.

Response: No response required.

2. Organization Skills:

- a. List the project management skills necessary for successful project implementation
- b. List the project management skills available within the agency
- c. List the source(s) of project management skills lacking within the agency
- d. Summarize relevant agency project management experience and results

Response:

- A. DW Project Management and Enterprise Coordination, DataBase Management, Data Modeling, Data Extraction and Load, Platform Management, Enterprise Metadata Architect, Business Requirements Analyst, Data Access Developer (Business Objects, ASP & JAVA Web Programming).
- B. DW Project Management and Enterprise Coordination, DataBase Management, Data Modeling, Data Extraction and Load, Platform Management, Business Requirements Analyst.
- C. Enterprise Metadata Architect skills are readily available through several consulting companies. Data Access Developer for both Business Objects and Web Programming is readily available and ITD has established an FTE position to fill this need.
- D. Through an Enterprise approach, the current partners have successfully deployed their applications. Significant knowledge transfer has occurred between the Enterprise, the Partners and ITD. A repeatable process has been established to identify business requirements, identify and move data, and create access (Business Objects and web-based) applications to rapidly and successfully bring new agencies onto the warehouse.

B. Project Information

1. History:
 - a. Is this project the first part of a future, larger project? If so, please explain.
 - b. Is this project a continuation of a previously begun project? If so, please explain project history, current status, and results.

Response:

A. The current data warehouse supports applications for three state departments. It is anticipated that many more agencies will participate in this project, adding data in FY02 and FY03. As data warehousing grows, the ability of data warehouse to link agency data for improved decision support will be greatly expanded. The Department of Corrections is planning on adding prison institution data during FY02. The Department of Public Safety and the Board of Parole are identifying suitable applications for the next fiscal year. ITD is meeting with Department of Education to discuss a statewide school assessment application that could be piloted in the next fiscal year. They are interested in piloting additional offenders and fine information in the Justice data Warehouse. The Department of Public Health is interested in using the data warehouse to support multiple Agency goals. The Iowa Commission of Veterans Affairs is planning on moving data from several sources to the warehouse to support better decision-making on services and priorities. Additional agencies have expressed interest in joining the warehouse in FY02 and FY03. Due to the success of the pilot project within the Department of Revenue and Finance, they are planning an expansion of their data warehouse to include more data from more sources along with adding an additional 70 users to support their goals. The Enterprise has created the necessary knowledge and talent base to bring agencies onto the warehouse quickly and efficiently. The long-term goal is to easily access data across all agencies and perform longitudinal studies for increased service delivery, decreased information analysis costs, and better decision-making.

B. The Enterprise Data Warehouse is a NCR World Mark Teradata relational data base platform managed by the State of Iowa's Information Technology Department (ITD). The platform was installed in December of 1999 and loading of production data was started in January 2000. Final standards for data and metadata are being reviewed. Business Objects has been selected as the query and reporting tool standard for the enterprise data warehouse.

ITD is responsible for the support and management of the Teradata platform. ITD established a small development capacity to support bringing agencies onto the warehouse. State agencies can select their own vendor to assess and model their data, use ITD development services, or a combination of both to minimize costs. Initially, three agencies collaborated together to purchase the platform. The Department of Revenue and Finance have created a Tax Gap application. This application is expected to recover \$9 million of unpaid taxes for Iowa. The Department of Human Services has loaded child welfare and economic assistance information. The Courts, working in conjunction with the Department of Human Rights, Criminal and Juvenile Justice Planning Division, have loaded all adult and juvenile court case processing data from Iowa's 99 counties. This covers all charges, sentences, judges rulings, fines, etc. The Justice Data Warehouse is used for numerous policy and planning decisions affecting adult and juvenile offenders.

Additionally, The Departments of Corrections and Personnel have created pilot projects involving their agency information.

2. Expectations: Describe the primary purpose or reason for the project.

Response:

To meet the mission and goals of each agency, historically individual agencies have created silos of redundant data that reside on many different computer platforms, in many different data forms, in different computer languages, with definitions that change from agency to agency. Unfortunately, most of this valuable data exists in operational (also called transactional or production) legacy systems and is not easily accessible to many managers and end users. This data can not easily be shared either within or by the agencies and departments.

Data warehouse technology puts the historical, detail data from many departments and agencies in a common computer platform, using standard formats, language, and definitions. The data warehouse is used to analyze data across agencies, conduct longitudinal studies across the enterprise, evaluate and benchmark programs, perform outcome analysis, and serve the various information presentation requirements of the State.

Foremost, state agencies are a community in the service of their common client base - Iowans. State staff experience virtually no boundaries in their movement between agencies during their tenure in State service. Our employees bring a vast knowledge base of information within agencies along with creative ideas of better ways to work together in the common interest of Iowans. This platform, for the first time, creates a sound technological structure and approach to enabling this cross-agency creativity.

3. **Measures:** Describe the criteria that will be used to determine if the project is successful.

Response:

An overall Enterprise goal is to create a primary, client-centered data model and reporting structure for each State agency. This will provide each agency with the opportunity to quickly and efficiently add data and end-users based on agency needs and goals. This will also ensure all participating agencies will have the capability to cross-share data based on their mutually determined requirements and agency visions. Each agency has different goals, objectives, and success metrics. The Enterprise works with each Agency to identify opportunities available through data warehousing to achieve these goals and objectives in a cost-beneficial environment.

4. **Environment:** List the project participants (i.e. single agency, multiple agencies, State government enterprise, citizens, associations, or businesses, etc.).

Response: This is an enterprise project sponsored by Information Technology Department to support and maintain an enterprise data warehouse platform. Criminal and Juvenile Justice Planning (CJJP) Division of the Department of Human Rights, Department of Human Services (DHS), Department of Revenue and Finance (DRF), Department of Corrections (DOC), Department of Personnel (DOP), Department of Public Safety (DPS), Board of Parole and the Iowa Judicial Courts are partner agencies and data contributors. Richard Varn is the Executive Sponsor for the Enterprise and Each agency has identified a coordinator and executive sponsor. Also included are the U.S. Department of Health and Human Services for TANF reporting and grants, the U.S. Treasury for Internal Revenue Service tax collection.

5. Risk: Describe the project risks which may be internal or external to State government, i.e. implementing versus not implementing project, changing technology, potential cost overruns, changing citizen demand or need, etc.

Response: Risks associated with implementing the project include:

- A. Availability of information. For the Enterprise Data Warehouse to be successful a wide range of agencies need to contribute and utilize data.
- B. Data Concerns: For the Enterprise to be successful, data must be accurate & timely, using compatible Enterprise-based data models.
- C. Metadata Concerns: For the project to be successful, a definition of the data must be easily accessible and available across the enterprise. Metadata standards and a metadata architect are critical to success.
- D. Lack of executive sponsorship in individual agencies. Several areas critical to overall success have been identified. Executives in these areas must be persuaded to participate.
- E. Training. Training technical staff to support the platform and software tools and training end user staff to access the data warehouse are critical.
- F. Cost Priority: Agencies are forced with critical prioritization issues, choosing between current systems and future opportunities. If Agencies do not participate, the current system will remain both costly and under-utilized.

Risks associated with NOT implementing the project include:

- A. The State will not be able to further leverage their original investment.
- B. Forfeiture of the lease/purchase agreement.
- C. The State will lose the opportunity to begin linking information systems to improve information sharing among agencies.
- D. The State will lose the ability to conduct longitudinal studies across agencies, programs and services.
- E. The State will fail to realize a significant return on investment. The power of data warehouse technology is the ability to access multiple data sources and analyze how programs impact each other and their customers across the enterprise. National studies conclude that data warehousing generated an average three-year return on investment of 401%. Over 90% of the organizations included in the analysis reported ROI returns over 40%, half reported returns greater than 160%, and 25% showed returns greater than 600%. The average payback for the warehouse application was 2.3 years for costs which averaged \$2.2 million. The study concluded that the more data located and queried on the data warehouse generated greater return on investment.
- F. The State will be limited in its ability to determine what investments and programs have the greatest impact on our customers.
- G. The State will be limited in its ability to identify trends and develop strategies to support or counter the trends.

6. Security / Data Integrity / Data Accuracy / Information Privacy
- a. List the security requirements of the project
 - b. Describe how the security requirements will be integrated into the project and tested
 - c. Describe what measures will be taken to insure data integrity, data accuracy and information privacy.

Response:

A. Due to the sensitive nature of the data and the variety of users, several levels of security are necessary. These include general access to the Teradata, database security, application security, and physical security. Additionally, each agency must be involved in each aspect of security to prevent unauthorized release of information. The security structure must ensure users are only able to access the data they are authorized to view and data providers (e.g. DHS) must specifically authorize shared use of their data to ensure Federal and State privacy laws are adhered to.

B. The Information Technology Department's Chief Security Officer has written a Data Warehouse Security Policy. To access the data warehouse at all, a user (or group of users) must have a pre-defined account with a userid and password, set up by the DBA. The physical security is provided through limited and secure access to the ITD server room. Each Agency must specify who has access to Agency data along with what type of access (e.g. record level, summary level, no access). Agencies use application security necessary to ensure only properly authorized users can access data via their reporting tool (e.g. web, Business Objects). ITD personnel work with each Agency to ensure all potential issues are identified and built into the data model. The Enterprise data model ensures all data is relatable yet segregateable, simultaneously promoting inter-Agency sharing and secure data storage.

C. The enterprise provides global standards for data architecture and metadata. Additionally, ITD provides support to Agencies in defining the security issues during the business requirements analysis phase of moving data to the warehouse. Integrity and accuracy of data is primarily the responsibility of the Agency. Information privacy requirements are identified during the business requirements phase of moving data and addressed as part of the security and data architecture.

7. Project Schedule

Describe general time lines, resources, tasks, checkpoints, deliverables, responsible parties, etc.

Response: Project schedules are determined by the end-users. Currently, customers are awaiting final funding decisions to establish their project plans. ITD participates with customers to ensure infrastructure requirements are in place to meet their needs. The Enterprise responsibility is to ensure adequate capacity and capability exist to support the growth and usage needs of the using agencies.

SECTION III: TECHNOLOGY (In written detail, describe the following)

A. Current Technology Environment

1. Software (Client Side / Server Side / Midrange / Mainframe):

- a. Application software
- b. Operating system software
- c. Major interfaces to other systems, both internal and external

Response:

- A. Queryman, ASP web pages, JAVA, XML, Jet Forms, Business Objects, and other ODBC compliant software based on user needs.
- B. Teradata V2.r4.02 RDMS on Unix OS.
- C. Interfaces: All mainframe systems including IDMS and VSAM (cobol). Additional interfaces within Agencies include Oracle, DB2, Access, and MS SQL databases.

2. Hardware (Client Side / Server Side / Mid-range / Mainframe):

- a. Platform, operating system
- b. Storage and physical environment
- c. Connectivity and bandwidth
- d. Logical and physical connectivity
- e. Major interfaces to other systems, both internal and external

Response:

- A. NCR World Mark 4800 quad processor on a Unix OS.
- B. 720GB Raid 1 Disk Array expandable to over 200 Terabytes. The server is housed in ITD's operations room.
- C. T1 utilizing ICN. Connectivity is both intranet and internet based.
- D. Connectivity is established based on end-user networks and jointly managed by end-users and ITD.
- E. All ITD mainframe systems.

B. Proposed Technology Environment

1. Software (Client Side / Server side / Mid-range / Mainframe)

- a. Application software
- b. Operating system software
- c. Major interfaces to other systems, both internal and external
- d. General parameters if specific parameters are unknown or to be determined

Response: Same as current. Software changes or upgrades are based on Enterprise needs.

2. Hardware (Client Side / Server Side / Mid-range / Mainframe)

- a. Platform, operating system
- b. Storage and physical environment
- c. Connectivity and Bandwidth
- d. Logical and physical connectivity
- e. Major interfaces to other systems, both internal and external
- f. General parameters if specific parameters are unknown or to be determined

Response:

Same as current. Additional capacity is added based on end-user needs. The first anticipated Enterprise need will be additional storage as new Agencies come onto the platform. The warehouse administrator monitors server performance to anticipate and predict server upgrade needs. Based on stated intentions of various agencies, the enterprise forecasts it may need two additional Business Objects servers, an additional Teradata processor node set, and double to triple the current storage capacity.

C. Data Elements

If the project creates a new database, provide a description of the data elements.

Response: The Justice Data Warehouse is populated with charge, sentence, and disposition, data for adults and juveniles from the Iowa Courts Information System. The Department of Human Services Data Warehouse is populated with data from Child Welfare, Temporary Assistance for Needy Families and various program and history aspects of some types of individuals. The Tax Gap Compliance Data Warehouse is populated with data consisting of different tax types and cross references from numerous systems provided by DOT, DHS, IRS, DRF, IWD.

The Department of Corrections and Public Safety and the Board of Parole are planning on adding adult institutional incarceration data and incident based criminal reporting. ITD is working with the Department of Health and Department of Education to identify potential data requirements. ITD is meeting with agencies on a regular basis to educate them to the benefits of using data warehouse technology and to assist in identifying potential cross agency applications that will enhance the enterprise's ability to analyze and make decisions for program improvement and better service delivery.

SECTION IV: Financial Analysis

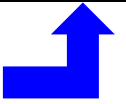
A. Budget: Enter figures and calculate (see formula below) Total Annual Prorated Cost (State Share).

$$\left[\left(\frac{\text{Budget Amount}}{\text{Useful Life}} \right) \times \% \text{ State Share} \right] + (\text{Annual Ongoing Cost} \times \% \text{ State Share}) = \text{Annual Prorated Cost}$$

Budget Line Items	Budget Amount (1 st Year Cost)	Useful Life (Years)	% State Share	Annual Ongoing Cost (After 1 st Year)	% State Share	Annual Prorated Cost
Agency Staff	\$70000	1	58%	\$70000	100%	\$110600
Software	\$954000	4	58%	\$304658	64%	\$333311
Hardware	\$1491000	3	58%	\$206087	64%	\$420155
Training	\$97500	4	58%	\$0	0%	\$14137
Facilities	\$0	1	%	\$	%	\$

Professional Services	\$750000	4	58%	\$0	0%	\$108750
ITD Services	\$480000	4	58%	\$480000	64%	\$376800
Supplies, Maint, etc.	\$90000	1	58%	\$90000	64%	\$109800
Other (Specify)	\$	1	%	\$	%	\$
Totals	\$3932500	-----	-----	\$1150745	-----	\$1473533

Transfer this amount to the ROI Financial Worksheet, item "D" on page 17.



B. Funding: Enter data or provide response as requested

1. This is (pick one): ☒ A Pooled Technology Fund or Reengineering Fund Request
☐ An Agency IT Expenditure or Budget Request (General Fund, Road Funds, etc)
☐ Other – Specify:

2. On a fiscal year basis, enter the estimated cost by funding source?

	FY03		FY04		FY05	
	Cost (\$)	% Total Cost	Cost (\$)	% Total Cost	Cost (\$)	% Total Cost
State General Fund	\$	%	\$	%	\$	%
Pooled Tech. Fund	\$2280850	58%	\$	%	\$	%
Federal Funds	\$1651650	42%	\$	%	\$	%
Local Gov. Funds	\$	%	\$	%	\$	%
Grant or Private Funds	\$	%	\$	%	\$	%
Other Funds (Specify)	\$	%	\$	%	\$	%
Total Project Cost	\$3932500	100%	\$	100%	\$	100%

If applicable, summarize prior fiscal year funding experience for the project / expenditure.

Response:

FY00 782,974
FY01 948,953
FY02 1,227,310 - estimated

1. On a fiscal year basis, how much of the total (\$ amount and %) project / expenditure cost would be absorbed by your agency from normal operating budgets (all funding sources)?

Response: N/A

2. Identify, list, and quantify all new annual ongoing (maintenance, staffing, etc.) related costs (State \$s) that will be incurred after implementation or expenditure.

Response: \$761,676 (State share)

C. ROI Financial Worksheet: Respond to the following and transfer data to the ROI Financial Worksheet (see IVC11) as necessary:

1. Annual Pre-Project Cost – Quantify all actual state government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation. This section should be completed only if state government operations costs are expected to be reduced as a result of project implementation.

Response:

Department of Human Services:

INCOME MAINTENANCE:

1. 1 Hour per customer visit acquiring information from several systems by case manager prior to meeting (19,000 monthly visits). $19,000 \times 1 \times \$20 \text{ per hour} \times 12 \text{ months} = \$4,560,000$.
2. 60 hours per month to produce TANF and Food Stamps reports (720 hours annually) $720 \times 20 \text{ per hour} = \$14,400$.

CHILD WELFARE:

1. 120 hours per month to produce State and Federal Reports. $1440 \times \$20 \text{ per hour} = \$28,800$.

EXECUTIVE INFORMATION:

1. 200 hours compiling divisional data into executive summary reports. $200 \times 12 \times 20 \text{ per hour} = \$48,000$.
2. Ad Hoc data Analysis. 140 FTE equivalents $\times 8 \text{ hours per day} \times \$20 \text{ per hour} \times 250 \text{ days} = \$5,600,000$.

Total Annual Pre-Project Cost = \$10,251,200

2. Annual Post-Project Cost – Quantify all estimated State government direct and indirect costs associated with activity, system or process after project implementation. This section should be completed only if State government operations costs are expected to be reduced as a result of project implementation.

Response:

Department of Human Services

INCOME MAINTENANCE:

1. Essentially, expense cited above is eliminated. New Cost = $\$4,560,000 \times 25\%$ (estimated time reduction of 75%) = \$1,140,000.
2. Essentially, expense cited above is eliminated. New Cost = $\$14,400 \times 10\%$ (estimated time reduction of 90%) = \$1,440.

CHILD WELFARE:

1. Essentially, expense cited above is eliminated. New Cost = $\$28,800 \times 10\%$ (estimated time reduction of 90%) = \$2,880.

EXECUTIVE INFORMATION:

1. Essentially, expense cited above is eliminated. New Cost = $\$48,000 \times 10\%$ (estimated time reduction of 90%) = \$4,800.
2. Ad Hoc Data analysis increased worker productivity. 7.2 hours (10% increased productivity) $\times 140 \text{ workers} \times \$20 \text{ per hour} \times 250 \text{ days} = \$5,040,000$.

Total Annual Post-Project Cost = \$6,189,120

3. State Government Benefit -- Subtract the total “Annual Post-Project Cost” from the total “Annual Pre-Project Cost.” This section should be completed only if State government operations costs are expected to be reduced as a result of project implementation.

Response:

Department of Human Services

 $\$10,251,200 - 6,189,120 = \$4,062,080 \text{ Savings}$

4. Citizen Benefit – Quantify the estimated annual value of the project to Iowa citizens. This includes the “hard cost” value of avoiding expenses (“hidden taxes”) related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work,

mailing, or other similar expenses. As a “rule of thumb,” use a value of \$10 per hour for citizen time savings and \$.325 per mile for travel cost savings.

Response:**Social Economic Impact:**

19% of all murders are deemed to be the final event of child abuse. Violent crime causes 3% of U.S. medical spending. Insurers pay \$45 billion annually in the U.S. due to crime. That amount gets passed onto insurance customers through higher rates. It is estimated that 10%-20% of mental health care expenditures in the U.S. are attributable to crime for victim treatment. By utilizing data warehouse technology built on a methodology of information sharing, we have the opportunity to provide a complete informational picture to more potential service providers. Whether intervention and prevention are accomplished by a DHS case worker, a law enforcement investigator, a parole officer, or one of the many other involved state agencies, prevention of criminal or child endangerment acts can result in a significant societal savings. The Trail Attorney's Association has estimated the national average of these costs to be as high as \$6.1 million per murder. Whatever the actual societal cost is here in Iowa, the important fact is crime, drug abuse, child abuse, and other negative social actions impact multiple state agencies and are a significant drain on the economic resources of the State. Utilizing a common, Enterprise data warehouse, creates the capability to analyze the impact of these activities across agency boundaries.

5. Opportunity Value/Risk or Loss Avoidance Benefit – Quantify the estimated annual non-operations benefit to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Response: DRF has identified 4,835 business tax non-filer leads using the data warehouse. 43,000 Iowa individual income tax under-reporter leads have been generated. To date \$3.5 million in revenue collections has been generated in Iowa. Estimated total collections \$9,000,000.

DHS child welfare data analysis savings is estimated at approximately \$200,000. If DHS Medicaid was added to the data warehouse a 90%-10% federal dollar match would be available. Medicaid fraud, waste, and abuse savings estimated at \$5,000,000 based on other states accomplishing similar activity. DHS, Iowa Commission of Veterans Affairs annual savings estimated at \$199,895.

CJJP identified \$212,541.60 in improved staff efficiency by utilizing the Justice Data Warehouse in FY2001. By putting case management data and other justice systems in the warehouse, analysis has been completed in a timely manner regarding charges, convictions, sentences, and other meaningful case information. Expanded capacity to conduct studies on juvenile crime and recidivism can result in better treatment programs for youthful offenders, thus potentially preventing adult crime which is very costly to the taxpayers of Iowa. In Iowa, Pre-Sentence Investigation (PSI) improve the decision making process of the Board of Parole in the sentencing of defendants and subsequent release of felons, by gathering all the history factors from multiple sources within the criminal justice network. The state is able to make improved projections and has been able to improve correctional impact statements.

Iowa also anticipates using the data warehouse to improve projections of correctional populations; provide information on fines collection rates and collection of restitution to victims; improve the assessment of the potential correctional impact of proposed legislation; and supporting a wide range of justice system planning and evaluation efforts.

6. Total Annual Project Benefit -- Add the values of all annual benefit categories.

Response:

DHS Operational Savings	\$4,062,080
DRF	\$5,500,000
DHS Child Welfare Data Analysis	\$ 200,000
Iowa Commission of Veterans Affairs	\$ 199,845
CJJP	\$ 212,541
Medicaid fraud, waste and abuse	\$5,000,000
Federal Funds	\$1,651,650

Total: \$ 16,826,116

Additionally, agencies will be able to share data allowing them opportunities to greatly decrease their costs associated with data generation for cross-agency needs.

7. Total Annual Project Cost – It is necessary to estimate and assign a useful life figure to each cost identified in the project budget. Useful life is the amount of time that project related equipment, products, or services are utilized before they are updated or replaced. In general, the useful life of hardware is three (3) years and the useful life of software is four (4) years. Depending upon the nature of the expense, the useful life for other project costs will vary between one (1) and four (4) years. On an exception basis, the useful life of individual project elements or the project as a whole may exceed four (4) years. Additionally, the ROI calculation must include all new annual ongoing costs that are project related. Completing Section IV-A, Project Budget of the evaluation document will provide all the necessary information for this item.

Response:

\$1,473,533

8. Benefit / Cost Ratio_– Divide the “Total Annual Project Benefit” by the “Total Annual Project Cost.” If the resulting figure is greater than one (1.00), then the annual project benefits exceed the annual project cost. If the resulting figure is less than one (1.00), then the annual project benefits are less than the annual project cost.

Response: 11.42

9. ROI -- Subtract the “Total Annual Project Cost” from the “Total Annual Project Benefit” and divide by the amount of the requested State IT project funds.

Response: $16,826,116 - 1,473,533 = \$15,352,583$ $\$15,352,583 / 2,280,850 = 673\%$

10. Benefits Not Readily Quantifiable -- List the project benefits which are not readily quantifiable (i.e. IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.). Rate the importance of these benefits on a “1 – 10” basis, with “10” being of highest importance. Check the “Benefits Not Readily Quantifiable” box in the applicable row.

Response:

10 - Ability to evaluate programs and improve outcomes to lower recidivism rates and reduce prison capacity requirements.

10 - Participating in the Enterprise data warehouse to increase information sharing across agencies and target services more effectively.

10 - Ability to identify tax gap audit opportunities to fairly enhance revenue.

10- Creating a technical support environment for employees to rapidly have access to data to improve their ability to deliver services and increase their morale.

10- Ability to conduct longitudinal studies across agencies.

10- Ability for Human Services employees to have a successful impact on the lives of the people that are trying to help.

10- Ability of employees to query and report information directly from the data warehouse where historically they had to wait days or months for a traditional information technology staff person to write a program for them.

Using data warehouse technology has improved the ability to anticipate future costs; improved prison population projections due to knowledge of up-to-the-month trends in criminal case filings and incarceration rates; the development of better responses to crime and criminal behavior; the passage of improved sentencing laws; improved allocation of resources for the justice system; and decision support to ensure fair and equitable treatment of offenders.

The overall benefit of this project is related to the increasing demand for reliable information with which to describe and assess the operations, clientele, and practices of Iowa's services. The first year of operation has proven that this initiative will result in many benefits stemming from informed decision-making, trend analysis, service delivery and agency cooperation across the enterprise.

11. ROI Financial Worksheet	
Annual Pre-Project Cost - How You Perform The Function(s) Now	
FTE Cost (salary plus benefits):	\$
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	\$
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	\$
A. Total Annual Pre-Project Cost:	DHS Operations = \$10,251,200
Annual Post-Project Cost – How You Propose to Perform the Function(s)	
FTE Cost:	\$
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	\$
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	\$
B. Total Annual Post-Project Cost:	DHS Operations = \$6,189,120
State Government Benefit (= A-B):	\$4,062,080
Annual Benefit Summary	
State Government Benefit:	\$4,062,080
Citizen Benefit:	\$
Opportunity Value or Risk/Loss Avoidance Benefit:	\$12,764,036
C. Total Annual Project Benefit:	\$16,826,116
D. Annual Prorated Cost (SECTION IV-A):	\$1,473,533
Benefit / Cost Ratio: (C / D) =	11.42
Return On Investment (ROI): (C – D / Requested Project Funds) x 100 =	673%
<input checked="" type="checkbox"/> Benefits Not Readily Quantifiable	

Section V: ITC Project Evaluation Criteria

Criteria and Location in Project Evaluation Document		Points
1.	Is the project a statutory requirement; legal requirement; federal or state mandate; health, safety or security requirement or issue; and/or required for compliance with the enterprise technology standards? Location: Section I-A	15
2.	Will the project improve customer service? Location: Section I-B.2	15
3.	Does the project have a direct impact on citizens? To what extent does the project help reconnect state government with lowans? Location: Section I-B.3	10
4.	Does the project provide a sufficient tangible and/or intangible return on investment? Will it generate savings or income? Location: Section IV-C	10
5.	Does the project make use of information technology and its practical application in reengineering traditional government processes consistent with the goals and objectives of the state's strategic plans? Location: Section I-B.1	10
6.	Risk: What are the risks associated with the project? Such risks may include those internal and external to state government, the risk of doing a project, the risk of not doing a project, and the risks associated with changing technologies, potential cost overruns, and changing citizen demands and needs. Location: Section II-B.5	10
7.	Is this funding required to continue a project that was begun prior to the year funding is being requested for and does it have proven past performance? Is the funding part of a multi-year strategy? Location: Section II-B1, IVB2	10
8.	Will the project be for only one agency, multiple agencies, or the state government enterprise? Location: Section I-B3, IIB4	10
9.	Has the applicant maximized their own and other resources in the project? Is alternative funding unavailable for this project? (If no other funding available, project will not be completed without Pooled Technology funding) Location: Section IV-B.2, IV-B.3	5
10.	What is the credibility of the requester based on past performance on other projects? Location: Section II-A.2.d	5
Total		100